

B. Remarks

Claims 1-24 are pending in the application. The examiner has rejected claims 1, 2, and 16 under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,650,705 to Vetro et al. (“Vetro”). The examiner also has rejected claims 3-12 and 17-22 under 35 U.S.C. § 103(a) as unpatentable over Vetro in view of U.S. Patent No. 4,989,257 to Horowitz. Finally, the examiner has rejected claims 13-15, 23, and 24 under 35 U.S.C. § 103(a) as unpatentable over Vetro in view of U.S. Patent No. 6,404,814 to Apostolopoulos et al. (“Apostolopoulos”). Applicant hereby amends claims 1 and 16, cancels claims 14, 15, 20, 23, and 24, and adds new claims 25 and-26.

Applicant amends claim 1 to recite:

A method of recognizing and compressing an image for transmission such that a requirement for transmission of the image is reduced while maintaining target-specific utility of said image, comprising:

defining a first object class having a first object criteria that is at least partially related to the target-specific utility of said image;

recognizing an object within said image as a member of said first object class if said object substantially meets said first object criteria of said first object class;

decomposing said image into a plurality of subbands;

providing to each of said multiple subbands a mapping of the region of said image having said object recognized as a member of said first object class;

creating for each of said multiple subbands a first subband class sequence corresponding to said region of said image having said object recognized as a member of said first object class and a second subband class corresponding to regions of said image not having said object recognized as a member of said first object class;

normalizing said first and said second subband class sequences; and

encoding said normalized first subband class sequences at a first coding rate and encoding said normalized second subband class sequences at a second coding rate, wherein said first coding rate is higher than said second coding rate

Applicant respectfully submits that the cited prior art does not disclose the foregoing combination of elements, either individually or in combination, and that claim 1 therefore is allowable. Claims 2-15 and 25, which depend from claim 1, therefore are allowable as well.

Applicant amends claim 16 to recite:

An apparatus for recognizing and compressing an image such that a requirement for the transmission of said image is reduced while maintaining target-specific utility of said image, comprising:

an object processor configured to receive the image and synthesize an object existing within said image;

a classification engine configured to recognize said object existing within the said image as a member of a first object class if said object substantially meets first object criteria of said first object class that is at least partially related to the target-specific utility of the said image;

an image decomposer configured to decompose said image into a plurality of subbands;

a wavelet mask constructor configured to provide for each of said multiple subbands a mapping of the region of said image having said object;

a subband class sequence generator configured to create for each of said multiple subbands a first subband class sequence corresponding to said region of said image having said object recognized as a member of said first object class and a second subband class corresponding to regions of said image not having said object recognized as a member of said first object class;

a normalizer configured to normalize said first and said second subband class sequences; and

a multi-rate encoder configured to encode said normalized first subband class sequences at a first coding rate and encode said normalized second subband class sequences at a second coding rate, wherein said first coding rate is higher than said second coding rate.

Applicant respectfully submits that the cited prior art does not disclose the foregoing combination of elements, either individually or in combination, and that claim 16 therefore is allowable. Claims 17-24 and 26, which depend from claim 16, therefore are allowable as well.

Applicant amends claim 20 to correct a minor grammatical error having no effect on the scope or substance of such claim.

Applicant respectfully submits that the foregoing amendments place the application in condition for allowance and respectfully requests reconsideration towards that end.

Respectfully submitted,



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